COMMON ENERGY EFFICIENCY TERMS AND DEFINITIONS

Advanced Technologies

Measures or processes which exceed the efficiency or thermodynamic performance of standard energy using equipment or processes.

Affiliate

Any person, corporation, utility, partnership, or other entity 5% or more of whose outstanding securities are owned, controlled, or held with power to vote, directly or indirectly either by an administrator or any of its subsidiaries, or by that administrator's controlling corporation and/or any of its subsidiaries as well as any company in which the administrator, its controlling corporation, or any of the administrator's affiliates exert substantial control over the operation of the company and/or indirectly have substantial financial interests in the company exercised through means other than ownership. For purposes of these Rules, "substantial control" includes, but is not limited to, the possession, directly and indirectly and whether acting alone or in conjunction with others, of the authority to direct or cause the direction of the management of policies of a company. A direct or indirect voting interest of five percent (5%) or more by the administrator, its subsidiaries, or its affiliates in an entity's company creates a presumption of control.

Avoided cost

Cost representing the value of the electricity or natural gas that, in the absence of a program, would need to be procured and delivered to an individual consumer.

Baseline Data

The initial base metric for comparing the net result of programmatic changes versus what would have happened in the absence of the program or activity.

Coincident Peak Demand

The metered or estimated demand of a device, circuit, or building that occurs at exactly the same time as the system peak for a given year and weather condition.

Community Choice Aggregators

Organizations created by local governments pursuant to Assembly Bill 117 for the purpose of procuring power and administering energy efficiency programs on behalf of local citizens.

Competitive solicitation

The process whereby parties are requested to submit bids offering innovative approaches to energy savings or improved program performance.

Conservation

Reduction of a customer's energy use achieved by relying on changes to the customer's behavior which may result in a lower level of end use service.

Conservation Measures

Activities and/or behaviors aimed at reducing energy consumption.

Conservation Programs

Programs which are intended to influence customer behavior as a means to reduce energy use.

Cost Effectiveness

An indicator of the relative performance or economic attractiveness of any energy efficiency investment or practice when compared to the costs of energy produced and delivered in the absence of such an investment.

Cream Skimming

Cream skimming results in the pursuit of a limited set of the most cost-effective measures, leaving behind other cost-effective opportunities. Cream skimming becomes a problem when lost opportunities are created in the process.

Cross Subsidization

Benefits enjoyed by one group, such as a customer class, that are funded by another group.

Customer

Any person or entity that pays an electric and/or gas bill to an IOU and that is the ultimate consumer of goods and services including energy efficiency products, services, or practices.

Dual Test

The requirement that an energy efficiency activity pass both the TRC and the PAC costeffectiveness test.

Effective Useful Life

An estimate of the median number of years that the measures installed under the program are still in place and operable.

Electricity Savings

Reduced electricity use (or savings) produced by either energy efficiency investments which maintain the same level of end use service or conservation actions which usually reduce energy use by reducing the quantity or quality of the baseline energy services demanded.

Emerging Technologies

New energy efficiency technologies, systems, or practices that have significant energy savings potential but have not yet achieved sufficient market share (for a variety of reasons) to be considered self sustaining or commercially viable. Emerging technologies include early prototypes of hardware, software, design tools or energy services that if implemented will result in energy savings.

End Use

- 1) The purpose for which energy is used (e.g. heating, cooling, lighting).
- 2) A class of energy use that an energy efficiency program is concentrating efforts upon. Typically categorized by equipment purpose, equipment energy use intensity, and/or building type.

Energy Efficiency

Activities or programs that stimulate customers to reduce customer energy use by making investments in more efficient equipment or controls that reduce energy use while maintaining a comparable level of service as perceived by the customer.

Energy Efficiency Measure

An energy using appliance, equipment, control system, or practice whose installation or implementation results in reduced energy use (purchased from the distribution utility) while maintaining a comparable or higher level of energy service as perceived by the customer. In all cases energy efficiency measures decrease the amount of energy used to provide a specific service or to accomplish a specific amount of work (e.g., kWh per cubic foot of a refrigerator held at a specific temperature, therms per gallon of hot water at a specific temperature, etc). For the purpose of these Rules, solar water heating is an eligible energy efficiency measure.

Energy Efficiency Programs

Programs that reduce customer energy use by promoting energy efficiency investments or the adoption of conservation practices or changes in operation which maintain or increase the level of energy services provided to the customer.

Energy Efficiency Savings

The level of reduced energy use (or savings) resulting from the installation of an energy efficiency measure or the adoption of an energy efficiency practice, subject to the condition that the level of service after the investment is made is comparable to the baseline level of service. The level of service may be expressed in such ways as the volume of a refrigerator, temperature levels, production output of a manufacturing facility, or lighting level per square foot.

Evaluation, Measurement and Verification (EM&V)

Activities which evaluate, monitor, measure and verify performance or other aspects of energy efficiency programs or their market environment.

Financial Incentive

Financial support (e.g., rebates, low interest loans, free technical advice) provided to customers as an attempt to motivate the customers to install energy efficient measures or undertake energy efficiency projects. (See Rebate)

Free riders (Free Ridership)

Customers who would have installed the program measure or equipment even without the financial incentive provided by the program.

Fuel Substitution

Programs which are intended to substitute energy using equipment of one energy source with a competing energy source (e.g. switch from electric resistance heating to gas furnaces).

Funding Cycle

Period of time for which funding of energy efficiency programs have been approved by the Commission.

Gas Savings

Reduced natural gas usage (or savings) produced by either energy efficiency investments which maintain the same level of end use service or conservation actions which can reduce energy use by reducing the quantity or quality of the baseline services provided.

Incremental Measure Cost

The additional cost of purchasing and installing a more efficient measure. Calculated from the price differential between energy-efficient equipment and standard or baseline measures. The inclusion of the word "gross" in the definition reflects incremental measure costs, which have not been adjusted for free riders. Net incremental measure costs means that the term has been adjusted for free riders; i.e., the net-to-gross ratio has been applied.

Information & Education

Information and education programs can provide a wide range of activities designed to inform or educate a customer or customer group. Generally these range from in-depth, one-on-one, on-site or centrally located classroom style instruction in topics related to energy efficiency, to programs that target information to specific types of customers, to general information provided to a wide range of customers, to short inexpensive public service announcements on FCC approved communication frequencies. Programs intended to provide customers with information regarding generic (not customer-specific) conservation and energy efficiency opportunities. For these programs, the information may be unsolicited by the customer.

Innovation Incubator

A low-cost, stand-alone program designed to grow innovative energy saving programs and processes for the larger portfolio over the long term. The incubator funds new program ideas that meet reasonable scientific scrutiny for potentially cost-effective energy savings and peak reduction.

Institutional Barriers

A type of market barrier: In this case, the internal organizational hurdles that inhibit the evaluation and or choice to take energy efficiency actions.

Least Cost Best Fit

The procurement of cost-effective supply and demand-side resources that, regardless of ownership, meet capacity and energy deliverability requirements. Energy efficiency resources are constructed from the bottoms up approach that aggregates the demand and energy savings from various energy-saving measures and activities into applicable end-use categories such as space cooling, space heating, lighting, and refrigeration, in order to provide near- and long-term peaking, intermediate, and baseload requirements.

Levelized Cost

An estimate of the annualized cost of installing an energy efficiency measures divided by the annual energy savings. Typically calculated by multiplying the incremental cost of the measure by capital recovery factor (function of discount rate and expected useful life of the measure) and then dividing by annual energy savings.

Load Management

Programs which reduce or shift electric peak demand away from periods of high cost electricity to non-peak or lower cost time periods, with a neutral effect on or negligible increase in electric use.

Load Serving Entities

Entities that provide electric and/or gas commodity to customers.

Lost Opportunities

Energy efficiency measures that offer long-lived, cost-effective savings that are fleeting in nature. A lost opportunity occurs when a customer does not install an energy efficiency measure that is cost-effective at the time, but whose installation is unlikely to be cost-effective if the customer attempts to install the same measure later.

Marketing and Outreach

Communications activities designed to identify, reach and motivate potential customers to take actions to either learn more about or invest in energy efficiency opportunities.

Measures

- 1) Specific customer actions which reduce or otherwise modify energy end use patterns.
- 2) A product whose installation and operation at a customer's premises results in a reduction in the customer's on-site energy use, compared to what would have happened otherwise.

Net to Gross Ratio

A ratio or percentage of net program impacts divided by gross or total impacts. Net to gross ratios are used to estimate and describe the free-ridership that may be occurring within energy efficiency programs.

Non-price Factors

Those factors included in cost effectiveness tests, other than commodity prices and transportation and distribution costs, e.g., environmental factors.

Partnership

Coordinated efforts of a utility and a local government or other entity to use the strengths of both parties to achieve energy savings goals.

Peak Demand-General (kW)

- 1) The maximum level of metered demand during a specified period, such as a billing month, or during a specified peak demand period.
- 2) Extremely high energy use, usually with reference to a particular time period.

Peak Savings- Coincident (kW)

The estimated peak (e.g. highest) demand savings (MW or kW) from a program for a specific time, date, and location coincident with the forecasted system peak for a given area and a given set of weather conditions. This estimate must also include consideration of the likelihood that the equipment is actually on at the time of coincident peak. Usage of this definition: Resource planning- for making adjustments to forecasts of peak usage for understanding reserve margins and reliability purposes.

Peak Savings- Daily Average (kW)

The average peak demand savings (kWh impacts/# of hours in the peak rate period) for a given utility during their peak season. Example for SCE-Peak period is for summer weekdays from 12-6 PM. So - daily average savings would be the number of kWh saved/# of kWhs saved for all weekday peak periods (= kWh/5 days/week* 12 weeks/summer* 6 hours/day = kW average. Usage: Cost effectiveness analysis, primarily for valuing energy savings that occur during the peak period using "peak" average avoided costs.

Peak Savings -Non coincident (kW)

Estimated highest level of peak savings (kW or MW) for a given program during the peak time period for a given utility on the hottest day of a "normal" weather year. Thus if a group of measures saved 1MW at 2Pm, 1.7 MW at 3PM, 1.6 MW at 4PM, 1.0 MW at 5Pm and 1.2 MW at 6 pm, the peak non coincident savings would be 1.7 MW. This savings estimate does not take into account how many of the affected devices or equipment will be operating during the peak time period. Usage: Cost effectiveness analysis and procurement.

Peer Review Group (PRG)

A subset of the Program Advisory Group consisting of non-financially interested members who will review utility submittals to the Commission, assess overall portfolio plans, plans for bidding out pieces of the portfolio, and the bid evaluation criteria for selecting third-party programs.

Performance Basis

The metrics by which a program or a group of programs is measured and evaluated for the purpose of assessing the program(s) success at displacing or deferring more costly supply-side resources and or increasing more energy efficient design and practices.

Performance Uncertainties

A market barrier: refers to new technologies or systems whose efficiency or system performance levels are uncertain due to lack of experience.

Portfolio

All IOU and non-IOU energy efficiency programs funded by ratepayers that are implemented during a program year or cycle. May also refer to a group of programs sponsored, managed, and contracted for by a particular IOU.

Pre-commercialization

A phase in the life of a product before it is readily available on the market.

Program

A collection of defined activities and measures that

- are carried out by the administrator and/or their subcontractors and implementers,
- target a specific market segment, customer class, a defined end use, or a defined set of market actors (e.g. designers, architects, homeowners),
- are designed to achieve specific efficiency related changes in behavior, investment practices or maintenance practice in the energy market,
- and are guided by a specific budget and implementation plan.

Program Activities

Any action taken by the program administrator or program implementer in the course of implementing the program.

Program Administrator

An entity tasked with the functions of portfolio management of energy efficiency programs and program choice.

Program Advisory Group (PAG)

Advisory groups for each utility service area composed of energy efficiency experts representing customer groups, academic organizations, environmental organizations, agency staff and trade allies in the energy market.

Program Cycle

The period of time over which a program is funded and implemented.

Program Implementation Plan

A detailed description of a program that includes program theory, planned program processes, expected program activities, program budget, projected energy savings and demand reduction and other program plan details as required by the Commission, assigned ALJ, or Energy Division.

Program Implementers

An entity or person that puts a program or part of a program into practice based on contacts or agreements with the portfolio manager.

Program Strategy

The set of activities deployed by the program in order to achieve the program's objectives.

Program Year(s)

The calendar year(s) during which the program operates.

Ratepayer

Those customers who pay for gas or electric service under regulated rates and conditions of service.

Rebate

A financial incentive paid to the customer in order to obtain a specific act, typically the installation of energy efficiency equipment.

Resource Value

An estimate of the net value of reliable energy (e.g., kWh, therms) and capacity (e.g., kW, Mcfd) reductions resulting from an energy efficiency program. This includes the net present value of all of the costs associated with a program and all of the estimated benefits (both energy and capacity). The calculation of resource value and associated benefits should be consistent with the avoided costs adopted in the most recent Commission proceeding or otherwise provided for by the Commission.

Service Area

The geographical area served by a utility.

Short Term/Long Term

Planning terms referring to the timing or expected timing of program activities, program impacts, or program funding. Short term indicates program activities, program impacts, or program funding that occurs during the current program cycle.

Long term indicates program activities, program impacts, or program funding that occurs beyond the current program cycle.

Source-BTU Consumption

Conversion of retail energy forms (kWh, therms) into the BTU required to generate and deliver the energy to the site. This conversion is used to compare the relative impacts of switching between fuel sources at the source or BTU level for the three-prong test required for fuel-substitution programs.

Standard Practice Manual

The California Standard Practice Manual: Economic Analysis of Demand-side Programs and Projects is jointly issued by the California Public Utilities Commission and the California Energy Commission. It defines the standard cost effectiveness tests and their components used for energy efficiency programs.

Statewide

Energy efficiency programs or activities that are essentially similar in design and available in all Commission regulated utility service areas in California.

Third Party/Non-IOU

Non-regulated implementers of ratepayer funded energy efficiency activities.

(END OF APPENDIX B)

(END OF ATTACHMENT 3)